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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/697,859  | 10/30/2003  | Kevin J. Gildea      | POU920030146US1     | 9769             |
| 46369 7590 03/13/2008<br>HESLIN ROTHENBERG FARLEY & MESTI P.C.<br>5 COLUMBIA CIRCLE<br>ALBANY, NY 12203 |             |                      |                     |                  |
| EXAMINER  |             |                      |                     |                  |
| WANG, LIANG CHE A   |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
| 2153  |             |                      |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/697,859

**Applicant(s)**

GILDEA ET AL.

**Examiner**

Liangche A. Wang

**Art Unit**

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-30 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)  
3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 10/30/03  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-30 are presented for examination.

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 9-17, 20-26, 29-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Burianek et al., US Patent Number 7,082,457, hereinafter Burianek.
4. Referring to claim 1, Burianek teaches a processing system (system 200) comprising:
  - a. a dedicated collective offload engine(server 215) coupled to a switch fabric (Figure 1, WLAN 13 comprises a switch, Col 5 lines 4-10) of a distributed computing environment (system 200) having multiple processing nodes (client 235, 240, 245) also coupled to the switch fabric (Figure 1, WLAN 13 comprises a switch, Col 5 lines 4-10, clients and server are connected via WLAN); and
  - b. wherein the dedicated collective offload engine (server 215) provides collective processing of data from at least some processing nodes of the multiple processing nodes and produces a result based thereon (Col 5 lines 58-63), said result being forwarded to at least one processing node of the multiple processing nodes (Col 5 lines 63-67).

5. Referring to claim 2, Burianek teaches the processing system of claim 1, wherein the dedicated collective offload engine is implemented as a hardware device coupled to the switch fabric (Figure 1, remote computer is a hardware device).
6. Referring to claim 3, Burianek teaches the processing system of claim 1, wherein the dedicated collective offload engine comprises:
  - a. a payload memory (database 210) configured to receive and store the data from the at least some processing nodes of the multiple processing nodes (Col 5 lines 58-63); and
  - b. an arithmetic logic unit (ALU) (information server 225) coupled to the payload memory (database 210, figure 2), wherein said ALU is configured to retrieve and perform the collective processing of data stored in the payload memory (Col 6 lines 4-27).
7. Referring to claim 4, Burianek teaches the processing system of claim 3, wherein the dedicated collective offload engine further comprises: a dispatcher (delegation component 220) coupled to the ALU (information server 225) and in communication with the at least some processing nodes of the multiple processing nodes (client 235, 240, 245) via the switch fabric, said dispatcher configured to control the collective processing of the data from the at least some processing nodes of the multiple processing nodes and the sharing of the result based thereon (Col 5 lines 49-52).
8. Referring to claim 5, Burianek teaches the processing system of claim 4, wherein the dedicated collective offload engine further comprises:

- a. at least one task table (assignment table 810) coupled to the dispatcher (delegation component 220), wherein the at least one task table is configured to store task identification (task ID 815) information related to the at least some processing nodes of the multiple processing nodes (Col 9 lines 15-19); and
  - b. at least one synchronization group table (delegation table 835) coupled to the dispatcher, wherein the at least one synchronization group table is configured to store identification information related to one or more groups of the at least some processing nodes of the multiple processing nodes (Col 9 lines 19-24).
9. Referring to claim 6, Burianek teaches the processing system of claim 4, wherein the dedicated collective offload engine further comprises: an adapter coupled to the switch fabric, wherein said adapter is configured to communicate with the switch fabric using a link protocol; and interface logic coupled to the adapter, the payload memory and the dispatcher, wherein the interface logic facilitates communication between said adapter and said payload memory and between said adapter and said dispatcher (figure 1, inherent features for connection communication devices).
10. Referring to claim 9, Burianek teaches the processing system of claim 1, wherein the collective processing provided by the dedicated collective offload engine includes execution of at least one collective operation for the at least some processing nodes of the multiple processing nodes without using a software tree (Col 1 line 52- Col 2 line 50, no software tree is used).
11. Referring to claim 10, Burianek teaches the processing system of claim 1, wherein the collective processing provided by the dedicated collective offload engine includes

managing at least one distributed lock associated with at least one of a distributed database and a distributed file system (Col 6 lines 9-14, authorization is required to access database 210).

12. Referring to claims 11-17, 20-26, 29-30, claims 11-17, 20-26, 29-30 encompass the same scope of the invention as that of the claims 1-6, 9-10. Therefore, claims 11-17, 20-26, 29-30 are rejected on the same ground as the claims 1-6, 9-10.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 7, 8, 18, 19, 27, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burianek.
15. Referring to claim 7, 8, 18, 19, 27, 28, Burianek teaches the invention as described in claims 1, 12, and 21, and Burianek does not teach a plurality of collective offload engines in communication with one another to facilitate the collective processing of data. However, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have multiple servers as server 215 in figure 2, in order to accomplish load balancing for process requests from clients 235, 240, 245. And communication among servers using switch fabric or direct connections are known in the art.

A person with ordinary skill in the art would have been motivated to make the modification to Burianek because having multiple offload engines in communication with one another would have reduce and avoid heavy loads of request in one offload engine.

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objection made. Applicant must show how the amendments avoid such references and objections. See 37 CFR 1.111(c).
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liang-che Alex Wang whose telephone number is (571)272-3992. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.
18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Liang-che Alex Wang  
March 4, 2008

/Liangche A. Wang/  
Primary Examiner, Art Unit 2153